

# *Newsletter for Birdwatchers*

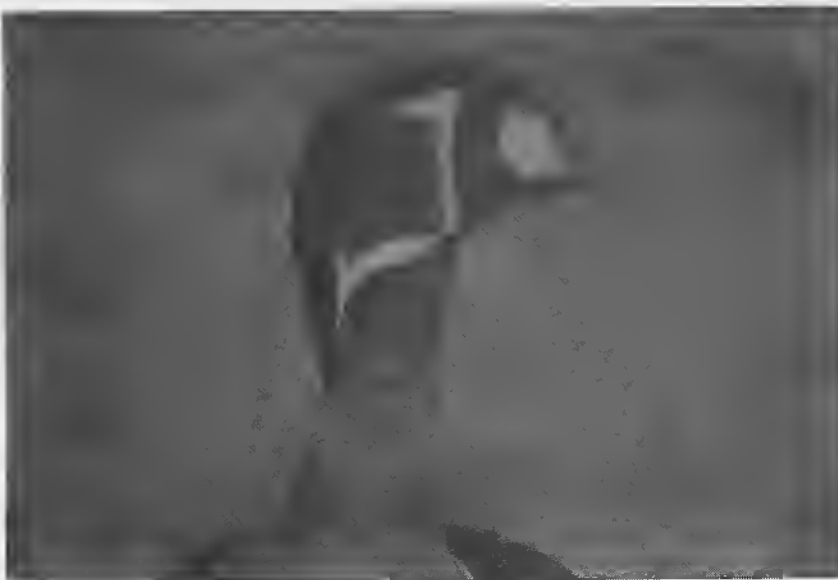
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## WATERBIRD CONSERVATION PLANNING



A Conservation Plan is being drafted for the Red Breasted Goose. (Photo : Joe Blossom, WWT)

BirdLife International is currently coordinating a project to develop Action Plans for Globally Threatened Bird Species in Europe. IWRB has been contracted to coordinate the action plans for the waterbird species, which include *Pelecanus crispus*, *Phalacrocorax pygmaeus*, *Branta ruficollis*, *Anser erythropus*, *Marmaronetta angustirostris* and *Oxyura leucocephala*. The development of these waterbird species action plans is currently carried out by IWRB's network of Research Group Coordinators and includes the organisation of small workshops for key experts to draft the plans.

IWRB is carrying out a project on "Actions to prevent avoidable mortality for threatened waterbirds in the European Community", under contract with the Commission of the European Communities. The species include *Branta ruficollis*, *Anser erythropus*, *Marmaronetta angustirostris*, *Oxyura leucocephala*, *Aythya nyroca* and *Fulica cristata*. The writing of the report is carried out in collaboration with IWRB's Research Group network.

Under contract with the UK Joint Nature Conservation Committee, IWRB produced a report on "Priorities for the selection of waterbird species in need of international conservation plans in the Western Palearctic". The main aim of this report was to identify priority species in need of international conservation plans in the Western Palearctic. Three categories are

described: a) threatened species and populations; b) vulnerable species and populations; and c) species and populations causing conflict with human activities, more specifically in agriculture, aquaculture and fisheries. Each category identifies and lists the species and populations in need of international conservation plans. Special attention has been paid to identify species occurring in the European Community. This report concludes with a number of recommendations, and aims to provide guidance for European countries towards the initiative to develop conservation plans on an international level. The report can be obtained through IWRB or JNCC, UK. (Ref. van Vessem J. 1993. Priorities for the selection of waterbird species in need of international conservation planning in the Western Palearctic. JNCC Report No. 172. IWRB Report to Joint Nature Conservation Committee, Peterborough, 49pp.)

### IUCN - SSC

Through a contract with the IUCN Species Survival Commission, IWRB and its Research Group network is involved in the development of Action Plans for the Storks, Ibises and Spoonbills, the Hérons, and the Anatidae. The latter will be linked to the current development of the Anatidae Action Plan under the Waterbird Agreements of the Bonn Convention.

Janine van Vessem, IWRB

## DISPERSED SPECIES PROJECT

Many European threatened and declining bird species are widely dispersed at some time of their annual cycle, and therefore cannot be conserved by a network of protected areas alone. They require broad habitat conservation measures integrated with land-use policies and regulations.

In September 1991, BirdLife International launched a Dispersed Species Project. The aim of the first phase was the identification of bird species that are of conservation concern on a European scale. Unlike most "Red Data" analyses, this classification system also identifies those species that, although not threatened, are nevertheless considered to be of European concern due to declining, small or localized populations.

### Second Phase

The second phase of the project is to develop wide-scale habitat conservation measures for those species defined in phase 1 as Species of European Conservation Concern (SPECs). Habitats have been divided to establish Habitat Working Groups.

### Inland Wetlands

IWRB is coordinating "Inland wetlands" which include all European areas of rivers, fresh, brackish or salt lakes and marshes excluding tundra and coastal wetlands. The Habitat Working group, composed of 15 experts from 11 countries, will draft and discuss a Habitat Action Plan for each habitat type, at an international workshop hosted by Dogal Hayati Koruma Derneği (DHKD) in Priene, Söke, province of Aydın, Turkey, during the first week of February 1994. The Habitat Actions Plan will include for each habitat: its importance for SPECs and other species, threats to the habitat, existing opportunities for wide-scale habitat conservation measures through national and international land-use policies, and recommendations for future policy development.

Nathalie Hecker, IWRB

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## Editorial

### ■ New Sightings

The number of new sightings which are reported in the Newsletter is an indication of the growing number of keen and knowledgeable birdwatchers in the country. To pick out a rare arrival in the midst of other similar looking birds is not easy, even if one follows the Peterson method of looking for the most prominent character of a particular species. With regard to the Gadwall noticed by PK Raveendran, Salim Ali says the chestnut patch in front of the black and white speculum is a good pointer. But in the case of ducks, the wide difference in the colouring of the male and female poses a serious problem.

The Red-legged Falcon to which Manoj Nair refers is a rare sighting. He is lucky to have spotted a passage migrant. The picture of the male bird in Ben King's *Birds of South East Asia*, with the strongly contrasting black and white wings on the underside, is a good aid to identification. But then, as in the case of the ducks, the female is less colourful and more difficult to identify.

### ■ Networking through the Newsletter

Nothing is more pleasing to the Editor than to receive a piece which refers to a previous contribution, and a comment by Peter Jackson, one of our most competent birdwatchers, is particularly welcome. Many will recall his article of many years ago when he managed to race against time, trying to identify the birds around Delhi between sunrise and sunset. He reached a total of 175 species. As the Chairman of the Cat Specialist Group of the IUCN, Peter continues to take a deep interest in our wildlife, and I doubt if he spends too many weeks in his home in Switzerland. In a letter dated August 25, 1993, which first went to our old address in Kodaikanal, then back to the sender in Geneva, and finally here — a Seven months' journey, Peter writes :-

"It was interesting to learn of the sighting of a skimmer at the Najafgarh Drain by Vivek Menon and Tara Gandhi in the July-August 1992 Newsletter. I presume that this was fairly near the Yamuna, where I used to see skimmers in the 1950s and 1960s from time to time. The really exciting time was in the 1960s when I found them nesting, along with river terns, great stone plovers and little pratincoles, on the sand banks opposite Indraprastha. I spent many mornings sweating in my hide in the summer heat while observing and photographing their comings and goings. Alas, the colony ceased to exist when the melon growers moved on to the sandbanks.

"Vivek and Tara are probably right about the lack of observation of birds in summer. In fact, those months are just as interesting as winter, if not more so, because of the nesting. I urge birders to get out there. The early mornings are delightfully fresh and comfortable, although rather sticky during the monsoon. And who cares about the heat when there is so much to see. It was during my daily wandering in summer around the Delhi countryside that I added several birds to the Delhi resident list, including blue-cheeked bee-eater and collared pratincole. Happy Days!"

### ■ Changes in the Bird Fauna of Uttara Kannada

I reproduce in this issue portions of an article "Changes in the Bird Fauna of Uttara Kannada, India", in relation to

Change in Land Use over the Past Century. This is authored by Ranjit Daniels, N.V. Joshi and Madhav Gadgil, and was published in Biological Conservation 52 (1990), 37-48. The topic is of great interest because changes in land use are understandably the crucial factor relating to changes in bird life. The planting up of the grasslands in the semi arid areas of Kutch have been responsible for the elimination of ground birds like the Houbara; replacing mixed deciduous forests (the greatest treasure trove of bird life) by exotic monocultures has been a calamitous development from the point of view of birds. Speaking about Uttara Kannada, Daniels and his co-authors say that the size of the bird fauna remains constant at around  $465 \pm 20$  species over the past century. The species which have been able to hold their own against man-induced changes are the specialist forest dwellers. But special attention needs to be paid to "conservation of the biological diversity of the semi-arid tracts of the Indian sub-continent".

### ■ Interesting recovery:

Debojit Phukan, Dhakuakhana Lakhimpur, Assam 727 055, writes to say that "I recovered a bird ring from a fisherman operating on the Brahmaputra river. The bird was a White-necked Stork (*Ciconia episcopus*). The Ring reads: Ring No.B-155294, CoobLLLh, Moskwa Uehp Kosybu. Location of ring recovery  $95^{\circ}\text{E}-27^{\circ}\text{N}$ . This species is supposed to be resident and locally migratory. How did it reach Russia?]



## A Note on the Bird Diversity of Siruvattukadu Kombei, Lower Palni Hills, Western Ghats

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Among the numerous habitat types in the Palni Hills, which form the Eastern spur of the Western Ghats, are large patches of moist deciduous forest (between altitudes of 500 to 1500 metres). These are among the richest habitats for avifauna in the Western Ghats. This habitat is increasingly under threat from expanding agricultural land use in the Palni Hills, such as the cultivation of coffee (*Coffea robusta*, *Coffea arabica*), banana (*Musa paradisiaca*) and lime (*Citrus aurantifolia*). As a result, the once continuous habitat, which spread over several valleys in the Palnis, is becoming increasingly fragmented and degraded.

### THE STUDY AREA

Siruvattukadu Kombei, a valley in the North-eastern slopes of the Palni Hills (Dindigul District of Tamil Nadu; Refer Fig.1) consists of four forest blocks covering an area of approximately 80 sq. km. This is one of the few valleys in the Palnis still retaining moist deciduous forest in relatively

good condition. The vegetation types in the valley include semi-evergreen forest (along stream beds and in the higher reaches), bamboo forest, dry deciduous forest and tire-climax grasslands (on surrounding peaks). The valley lies at a height of 750 m above msl and is more or less cut off from other similar habitats in the Palnis. The valley is dotted with tribal and other settlements. The water courses in the valley enter a major stream, Seradipallam, which drains into the Parappalar, a Reservoir in the heart of the Valley.

### METHODOLOGY

A record was kept of the bird species sighted in this area from June 1991 to September 1991 and from February 1992 to June 1992. This was done during the course of various projects being carried out by the Sustainable Development Programme, Palni Hills. The specific habitat in which a bird species was sighted, was recorded.

## HABITAT TYPES

The different habitats identified for recording the bird species were as follows (given in increasing order of their extent in the area):

### 1. Reservoir area

This category included the grassy and scrubby (secondary forest) areas, dominated by *Lantana camara* around the Parappalar Dam and the reservoir itself.

### 2. Riparian agricultural land

Agricultural land (description in the next habitat) along the stream beds.

### 3. Agricultural land

The agricultural land in and around the major settlements consisted of plantations of coffee, banana, silk cotton (*Bombax ceiba*) and acid lime. These plantations had trees such as silver oak (*Grevillia robusta*), jackfruit (*Artocarpus heterophyllus*) etc., intermixed with plantation crops.

### 4. Riparian forest

This habitat was confined to narrow belts of moist deciduous and semi-evergreen forests, along the stream beds. These consisted of tall stands of *Terminalia arjuna*, *Ficus racemosa*, *F. bengalensis* and *Mangifera indica*, interspersed with an understorey of *Pongamia pinnata* and *Tarenna asiatica*.

### 5. Forest interior

These were mainly moist deciduous forests on the slopes of the valley, intermixed with patches of grassland and dry deciduous forest. This habitat was dominated by *Alphonsea sclerocarpa*, *Sterculia foetida*, *Dalbergia punctulata*, *Diospyros melanoxylon* and *Schleichera oleosa*.

## BIRD DIVERSITY IN THE STUDY SITE

A total of 94 species of birds were recorded in Siruvattukadu Kombei. Considering that these observations were confined to a period of eight months (February-September), this number is quite significant. A detailed and intensive survey spread over an year, could add many more species.

The habitat-wise occurrence of these bird species is given in Table 1. 28 species were recorded in *agricultural*, *agricultural riparian* or in a combination of the two. These included species used to man-modified habitats such as the pied crested cuckoo, ashy swallow-shrike, grey shrike and the Indian lorikeet. Some unusual sightings in this zone were

blackheaded oriole, large cuckoo-shrike, goldmantled chloropsis and Indian pitta. These unusual sightings indicate that the bird species, usually limited to forests, utilise man-modified habitats for foraging.

13 species were seen in both *man-modified* as well as *forest habitat* (excluding reservoir habitat). Among them were purplerumped sunbird, black eagle and greater racket-tailed drongo.

Only seven species were sighted. In *riparian habitat*, both in *forest* and *agricultural habitats* such as the grey wagtail, common kingfisher, the coppersmith barbet, whitebreasted waterhen and green sandpiper.

The species seen in the *forest interior*, in *riparian forest* and in *both habitats*, numbered 41. Among the rare birds sighted in these habitats were the redwinged crested cuckoo, malabar trogon, blue chat, forest wagtail, brown fish owl, orangeheaded ground thrush, storkbilled kingfisher and great black woodpecker. These were sighted only in thickly forested areas, both close to streams or away from them. A striking feature was the abundance of fairy bluebird in the area which was frequently seen in riparian and forested zones. The redwinged crested cuckoo, reportedly rare in South India, was sighted in riparian forest. It stayed in the same locality for a week, in April, 1992.

Five species typical of wetland area, were confined to the *Reservoir area* and were not sighted in any other habitat.

Most of the birds of prey were sighted in the man-modified zones only. The black eagle was sighted in the forest area also. Besides a few birds of prey, there were an equal number of frugivores, insectivores, granivores and nectivores.

The presence of numerous species that are reportedly confined to thick moist deciduous and evergreen forest, indicate the value of this isolated tract of forest as an important avifaunal refuge. In addition, there are several species and subspecies that are endemic to the Western Ghats such as the Malabar trogon, the crimsonthroated barbet, the fairy bluebird and blackheaded yellow bulbul (rubythroated).

Further fragmentation and isolation of Siruvattukadu Kombei could mean the local extinction of all these species that can survive only in primary habitat.

## REFERENCES

- Ali, S. and Ripley, SD (1983). A Pictorial Guide to the Birds of the Indian Sub-continent. *Bombay Natural History Society*.
- Sustainable Development Program (1992). Planning for Intervention in the Palnis.

Table 1.  
Habitat-wise listing of Avifauna at  
Siruvattukadu Kombei, Palni Hills

Syn. No.	Common Name of Bird Species	Habitat				
		1	2	3	4	5
1 Reservoir Area						
311	Common peafowl	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
366	Redwattled Lapwing	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
709	Crested Tree Swift	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
719	Lesser Pied Kingfisher	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
1098	Common Iora	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
2 Riparian Agricultural Area						
566	Indian Lorieet	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
735	Whitebreasted Kingfisher	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
3. Agricultural Land						
124	Blackwinged Kite	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
139	Shikra	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
571	Pied Crested Cuckoo	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
573	Common Hawk-Cuckoo	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
652	Spotted Owlet	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
755	Indian Roller	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
763	Hoopoe	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
867	Indian Pitta	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
933	Grey Shrike	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
1009	Jungle Myna	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
963	Black Drongo	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
982	Ashy Swallow-Shrike	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
1006	Common Myna	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
1054	Jungle Crow	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
1072	Large Cuckoo-Shrike	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
1108	Goldmantled Chloropsis	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
1120	Redwhiskered Bulbul	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
1128	Redvented Bulbul	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
1938	House Sparrow	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
196	Crested Serpent Eagle	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
190	Pale Harrier	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
584	Indian Plaintive Cuckoo	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>

Syn. No.	Common Name of Bird Species	Habitat				
		1	2	3	4	5
4 Riparian Forest						
730	Storkbilled Kingfisher	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
28	Little Cormorant	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
631	Brown Fish owl	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
58	Black Bittern	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
569	Redwinged Crested Cuckoo	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
—	Nightjar spp.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
830	Indian Grt. Black W'pecker	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
861	Larger Goldenbacked W'pecker	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
819	Lesser Goldenbacked W'pecker	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
804	Rufous Woodpecker	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1267	Whiteheaded Babbler	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5 Interior Forest						
1065	Pied Flycatcher-Shrike	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
967	Whitebellied Drongo	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
785	Small Green Barbet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
.815	Small Yellownaped W'pecker	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
965	Ashy Drongo	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1015	Grackle Myna	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1173	Slatyheaded Scimitar Babbler	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1650	Blue Chat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1734	Orangeheaded Ground Thrush	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1909	Small Sunbird	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1933	White-Eye	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
275	Red Spurfowl	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
590	Koel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Agricultural Zone						
958	Blackheaded Oriole	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1794	Grey Tit	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1661	Magpie-Robin	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1968	Whitebacked Munia	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Riparian Zone						
343	Whitebreasted Waterhen	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
42	Pond Heron	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Syn. No.	Common Name of Bird Species	Habitat				
		1	2	3	4	5
397	Green Sandpiper	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
537	Spotted Dove	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
722	Common Kingfisher	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
792	Crimsonbreasted Barbet	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1887	Grey Wagtail	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Forest &amp; Agricultural Habitat</b>						
782	Large Green Barbet	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
564	Bluewinged Parakeet	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
977	Greater Racket-tailed Drongo	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1032	Indian Tree Pie	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1093	Scarlet Minivet	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1109	Fairy Bluebird	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
744	Chestnutheaded Bee-eater	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
600	Crow-Pheasant	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1908	Purplerumped Sunbird	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
172	Black Eagle	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1093	Small Minivet	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1265	Jungle Babbler	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1917	Purple Sunbird	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Syn. No.	Common Name of Bird Species	Habitat				
		1	2	3	4	5
<b>Forest Habitat</b>						
542	Emerald Dove	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
595	Small Greenbilled Malkoha	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
712	Malabar Trogon	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
971	Bronzed Drongo	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1116	Blackheaded Yellow Bulbul	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1154	Yellowbrowed Bulbul	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1442	Tickell's Blue Flycatcher	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1461	Paradise Flycatcher	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1465	Blacknaped Flycatcher	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1665	Shama	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1728	Malabar Whistling Thrush	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1838	Velvetfronted Nuthatch	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1874	Forest Wagtail	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
301	Grey Junglefowl	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
790	Crimsonthroated Barbet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
954	Blacknaped Oriole	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1103	Goldenfronted Chloropsis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

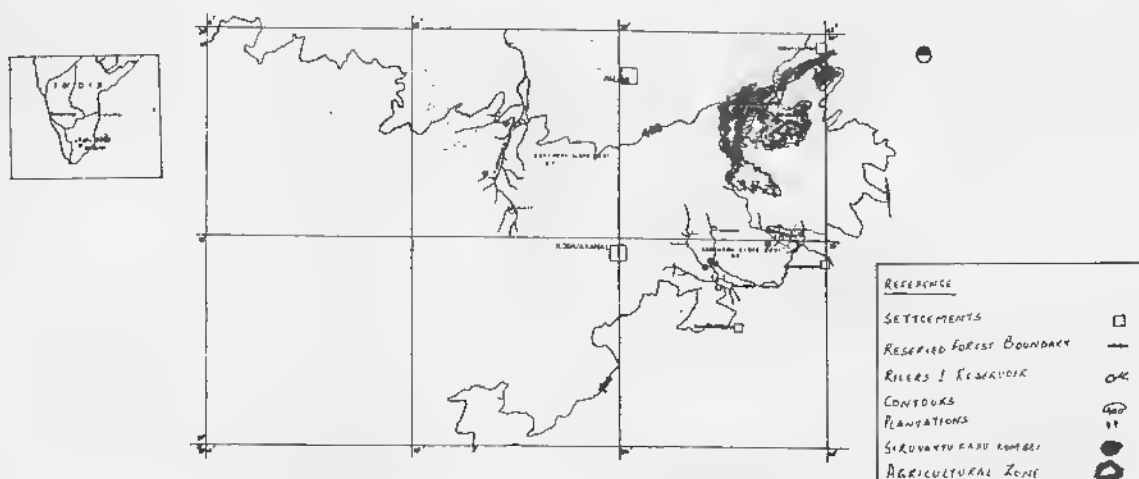
## Key

## Habitats :

1. Reservoir Area
2. Riparian Agricultural
3. Agricultural land
4. Riparian Forest
5. Interior Forest

Seen : ☒Not Seen : ☐

SYN NO. : Synopsis number as in Ali &amp; Ripley, 1986







## Extracts From Article "Changes in the Bird Fauna of Uttara Kannada, India"

R.J. RANJIT DANIELS, N.V. JOSHI and MADHAV GADGIL

"The Indian subcontinent is amongst the biologically better known parts of the tropics and its bird fauna has been extensively documented, from Jerdon's (1862-64) pioneering investigations to Ali & Ripley's (1983) authoritative handbook. However, an investigation of the regional changes in India's bird fauna in some depth, against the background of a massive increase in the human population, extensive deforestation and substantial changes in the pattern of land use, has not been possible until now as there have been very few long-term studies of the bird fauna of any region within India, most being based on surveys lasting from a few weeks to a few months and being obviously very incomplete. An important exception to this is Davidson's (1989a, b) account of the birds of Uttara Kannada (earlier known as North Kanara/Canara), based on five years' careful observations and collection between 1888 and 1896. The northern part of the same district was resurveyed over a period of three months in 1938 by Koelz (1942). We therefore have an excellent historical record almost precisely from a century and half century ago of the birds of this district. The field studies of RJRD, ranging over a five-year period from 1983 to 1988, provide the most complete regional study of the current bird fauna of India. These three data sets are therefore an excellent basis on which to examine whether there have been significant changes in the bird fauna of this region, and if so, what its implications are for a long-term strategy of conserving India's heritage of biological diversity ...".

"The district of Uttara Kannada (13°55' to 15°32' N Latitude and 74°5' to 75°5' E Longitude), with an area of 10,200 km<sup>2</sup>, lies at the centre of India's west coast where the hill range of Western Ghats, parallel to the coast, is at its lowest and broadest, running all the way to the sea, but hardly ever rising to over 600 m in altitude ...".

"The major transformation undergone by the region over the last century is a reduction in total forest cover from over 8000 km<sup>2</sup> (Campbell, 1883) to around 7000 km<sup>2</sup> (Pascal, 1984; Gadgil *et al.*, 1985-86; Kamath, 1985), this land being converted to townships, mines and hydroelectric projects or reservoirs ...".

"As a consequence, what were dry scrub and tallow lands a century ago are now under irrigated cultivation and there are large perennial reservoirs in the driest parts of the district (Kamath, 1985; Gadgil *et al.*, 1985-86; Gadgil & Subash Chandran, 1988) ...".

### District of Uttara Kannada

"(During) the recent survey done by RJRD between 1983 and 1988, the entire district was traversed. Birds were

sight-recorded during the first two years on 36 1-ha plots distributed over a few localities. The latter part of the survey involved sampling on more than a hundred 60 m long transects laid all over the district representing most of the major habitat types. In addition, systematic records were kept since 1983 of every bird taxon opportunistically encountered outside the sample limits and while travelling. For each of the 343 taxa encountered during the 5-year period, details of geographic distribution and habitat preference are available. The district was divided into about 500 5 km x 5 km grids and the present patterns of distribution of these birds and the major habitat types were mapped. It seems appropriate in this context to treat a species and subspecies of bird alike. Therefore, the term 'taxon' has been used throughout the text to refer generally to a species or subspecies of bird ...".

"There are three possible reasons as to why some taxa were recorded by one of the observers but not by one or more of the others: (1) The taxon was present, but the other observer/s failed to record it; (2) the taxon was not present at the time, but this was a part of the normal turnover of the total bird fauna unrelated to any change in the habitat; or (3) the taxon was not present because its preferred habitat was not available ...".

"The 31 Taxa of Birds Not Sighted during the Recent Survey but Recorded Earlier by Davidson and/or Koelz (DUK R) and the 9 taxa Only Recorded Recently by RJRD (DUR R).

DUK R	DUR R
1 Gyps indicus	1 Ardea alba
2 Ichthyophaga ichthyaetus*	2 Threskiornis melanocephala
3 Gorsachius melanolophus	3 Platalea leucorodia
4 Pseudibis papillosa	4 Glareola lactea
5 Coturnix coromandelicus	5 Sterna aurantia
6 Perdicula erythrorhynchus	6 Bubo coccomandus
7 Perdicula asiatica	7 Alauda gulgula
8 Turnix suscitator	8 Estrilda amandava
9 Turnix sylvatica	9 Lonchura kelaarti
10 Turnix tanki	
11 Rallus striatus	
12 Rallina eurizonoides	
13 Sympheotides indicus	
14 Rostratula benghalensis	
15 Burhinus oedipnemus	
16 Cursorius coromandelicus	
17 Treron bicinctus	
18 Streptopelia decaocto	
19 Streptopelia orientalis erythrocephala	
20 Psittacula eupatria	
21 Strix leptogrammica	
22 Taccocua leschenaultii	



	DUK R	DUK R
23	Centropus toulou	
24	Picus myrmecophoneus	
25	Mirafra javanica	
26	Mirafra assamica	
27	Turdoides striatus somervillei	
28	Turdoides caudatus	
29	Dumetia hyperythra	
30	Zoothera dauma	
31	Aethopyga siparaja	

\* Recently sighted by amateur birdwatchers

"As mentioned above, dry scrub/secondary thickets and grasslands were amongst the habitats relatively common in the cultivated tracks of the low-rainfall eastern areas as a result of poor irrigation facilities and cultivation practices at the times of the Davidson and Koelz surveys (Campbell, 1883; Davidson, 1898a; Koelz, 1942). These have subsequently been transformed through extensive irrigation of cultivated lands and planting of other areas by exotic xerophytic species such as Eucalyptus and, recently, *Acacia auriculiformis*. At the same time, the district now has a series of reservoirs developed either for irrigation or power generation, greatly increasing the habitat available for birds dependent on larger water bodies. It is therefore likely that the disappearance of species such as the ring dove *Streptopelia decaocto* and common babbler *Turdoides caudatus* may be related to the loss of habitat. It is also possible that species such as the white ibis *Threskiornis melanocephala* and skylark *Alauda gulguia* are new additions to the bird fauna of the district due to the creation of extensive areas of suitable habitat ...".

"Birds utilizing the forest habitat in the Uttara Kannada district appear to be little affected by the changes that have taken place over the last century, including a decline in the area under forest cover from about 80% to 70% accompanied by an increase in the size of cultivated enclaves and habitation within the forest. Thus, we resighted the single localized population of about 30 birds of the Wynad laughing thrush *Garrulax delesserti*, a subspecies endemic to the Western Ghats, in the same locality near Castle Rock as had been noted by Davidson and Koelz. Five forest taxa which have apparently disappeared, i.e. the Nilgiri thrush *Zoothera dauma*, the large Indian parakeet *Psittacula eupatoria*, the little scaly-bellied green woodpecker *Picus myrmecophoneus*, the orange-breasted green pigeon *Treron bicincta* and the yellow-backed sunbird *Aethopyga siparaja*,

were all rare. Uttara Kannada represents the northern fringe of distribution of *Z. dauma*, and the southern limit for *A. siparaja* (Ali and Ripley, 1983). It is possible that small populations of these species still exist in Uttara Kannada and have been overlooked. By and large, the forest bird fauna of the district has not fared too badly over the last century. The raptors, often noted as most likely to suffer extinction, have also all persisted during the period, the only resident species not covered by RJRD — the fishing eagle *Ichthyophaga ichthyaetus* — having been recently resighted by amateur birdwatchers (Bruno Boedts, pers. comm.). As in Java, the raptors appear able to adapt to living in smaller habitat fragments (Thiollay & Meyburg, 1988).

Birds on the fringes of their geographical distribution, those with special habitat preferences, birds of larger size and birds hunted by man for food have been noted to be particularly susceptible to extinction (Diamond, 1971, Terborgh, 1974). Apart from the thrush *Z. dauma* noted above, the ring dove *S. decaocto*, a very conspicuous bird for which the Uttara Kannada district constitutes the western tringe of its distribution, seems now to be extinct. Of the scrub/dryland birds which have apparently disappeared, the lesser florican *Sypheotides indicus*, the Indian courser *Cursorius coromandelicus* and the sirkeer cuckoo *Taccocua leschenaultii* as well as *S. decaocto* are all amongst the largest of the scrub/dryland specialists. They also all happen to be hunted by man for food.

King (1978) notes that of the birds on decline in the world 67.2% are forest birds, 16.8% scrub and grassland birds and 12.7% frequent wetlands. For Uttara Kannada the second category seems clearly to be the most threatened. This is likely to be true also of the country as a whole for, the natural vegetation of the semi-arid and arid tracts of the country has been subject to the highest level of degradation. Consequently, the list of threatened bird forms of the Indian subcontinent as it appears in the recent compilation by the World Conservation Monitoring Centre (1988) includes six taxa characteristic of scrubland habitat, prominent amongst which are the Great Indian Bustard *Choriotis nigriceps*, Bengal florican *Eupodotis bengalensis* and the Jerdon's courser *Cursorius bitorquatus*. While some serious thought has been given to the conservation of the desert biota with the establishment of a Desert Biosphere Reserve, we believe that the semi-arid regions deserve the most urgent attention of those concerned with the conservation of India's biological diversity ... "



## Birds as Pest Controllers and Depredators

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### Role of woodpeckers in the control of cashew barkborer

Among the pests of cashew, the barkborer (*Indarbela tetraonis*) is a major one causing appreciable damage.

The caterpillars bore into the bark and make galleries between the bark and the sapwood. Their feeding on bark tissues and sapwood causes loosening of the bark and sapwood damage. In senile and poorly managed trees the

entire bark of the main trunk gets damaged and peels off. The damage is more pronounced during summer months and in periods of prolonged drought.

Recent observations at Bhavanisagar indicate that three species of woodpeckers prey upon the caterpillars of *I. tetraonis* during summer months between April and June. The Goldenbacked Woodpecker (*Dinopium benghalensis*), Southern Rufous Woodpecker (*Micropternus brachyurus*) and Mahratta Woodpecker (*Picoides mahrattensis*) were observed visiting the cashew plantations, probing for and removing caterpillars from infested trees. These birds were found to be active throughout the day. The Goldenbacked Woodpecker was the most predominant species followed by Mahratta woodpecker and Southern Rufous Woodpecker. A total of 21 trees were found to be affected by the barkborer during the end of March. The birds started visiting by mid April and all the trees were cleared of caterpillars by the end of April. The woodpeckers continued their probing of the cashew trees even after May probably in search of shallow seated stemborer (*Placoderus ferrugineus*). During June there were two incidences of the Mahratta woodpecker successfully extracting grubs of *P. ferrugineus*. Besides cashew, the woodpeckers also visited jack, mango and kapok trees in search of stemborers.

In a recent survey for insectivorous birds these woodpeckers were found to be residents of Thalaimalai reserve forests adjoining Bhavanisagar area. The present investigations indicate the usefulness of these birds in managing specific pests attacking an important forest cum horticultural crop.

### Birds as Depredators of Niger Crop

Niger (*Guizotia abyssinica*) is an important minor oilseed cultivated extensively around the Thalavadi, Bargur and Kadambur hills of North Western Tamil Nadu and adjoining areas of Karnataka under rainfed conditions. This is a cold weather crop coming to maturity during January and attracts large number of birds. These birds feed on the protein and oil rich seeds of niger and cause considerable seed loss. A recent survey in Thalavadi and Kadambur in Tamil Nadu indicated heavy depredation of niger seeds by birds. The following are the species of birds associated with niger.

Roseringed parakeet	<i>Psittacula krameri</i>
Blossom headed parakeet	<i>Psittacula cyanocephala</i>
Spotted munia	<i>Lonchura punctulata</i>
Black headed munia	<i>Loanchura malacca</i>
House sparrow	<i>Passer domesticus</i>
House crow	<i>Corvus splendens</i>
Jungle crow	<i>Corvus macrorhynchos</i>
Jungle myna	<i>Acridotheres fuscus</i>

Our observations revealed that these birds usually select large and thick stemmed plants, perch and feed on the seeds. The parakeets at times cut the heads and take away them. Since January is relatively cool here, the foraging activity continued throughout the day. A total of 1,100 plants were examined, 100 each selected at random from ten locations at Thalavadi and the damaged earheads accounted for 31.67%. Of the birds visiting the crop, the roseringed parakeets formed the most predominant species followed by crows, house sparrows and jungle mynas in that order.



## Reporting on the Eighth Asian Waterfowl Census in Dharwad District (India), January 1994

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Although hunting is banned by Law, a few daring village poachers and nearby tribal dwellers, especially in the western parts of the District of Dharwad, continue to vindicate their rights and use some of their own ingenious methods and techniques to either trap or kill migratory waterfowl like grazing Wigeon, Demoiselle Crane, Barheaded Goose, and dabbling ducks like Pintail, Pochard and others including Blue Winged Teal and Common Teal that congregate in large proportions in the water bodies of irrigation tanks of Dharwad District. This was reported by the local people to our Dharwad area bird-watchers who went out to conduct the waterfowl census on the 8th and 9th of January 1994 to Nigadi tank situated in the North West of Dharwad District. Similar poaching reports were brought to the notice of another group of birders who went down surveying along the South-western part of the District to take

counts of birds on the same dates. Such exploitation if allowed to continue, may reduce in course of time the population of some of the rare species like Pochard and Wigeon. It calls for habitat protection and creation of sanctuaries through public cooperation at least in some areas, where birds can feed unmolested.

On the whole, the 1994 January census showed a positive rise in the population of water birds in contrast to shore birds. The reason has been that during the months of November and December 1993, heavy rains lashed North Interior Karnataka and many tanks in the District overflowed or even breached to produce floods which attracted migratory flocks passing by. Pochards appeared in good numbers compared to previous years. On the other hand, Flamingos and Brahminy Ducks which were frequenting did not appear at all. In fact appearance of Pochards to South of

the Deccan is a range extension, as otherwise, they normally prefer to be confined to Northerly wintering areas.

The following is the summary of bird counts recorded from some important tanks in the District, namely, Heggeri, Naregal, Akki-Alur, Hawanagi and Hamsabhavi tanks: on 8th Jan '94.

1	Demoiselle Crane,	<i>Grus virgo</i>	20060
2	Barheaded Goose,	<i>Anser indicus</i>	02001
3	Wigeon,	<i>Anas penelope</i>	2060
4	Pintail,	<i>Anas acuta</i>	50010
5	Pochard,	<i>Aythya ferina</i>	
6	Garganey,	<i>Anas querquedula</i>	3
7	Common Teal,	<i>Anas crecca</i>	90
8	Spotbill,	<i>Anas poecilorhyncha</i>	80
9	Black-tailed Godwit,	<i>Limosa limosa</i>	
10	Spoon-Bill,	<i>Platalea leucorodia</i>	
11	White Ibis,	<i>Threskiornis melanocephalus</i>	100
12	Black Ibis,	<i>Pseudibis papillosa</i>	8
13	Little Cormorant,	<i>Phalacrocorax niger</i>	100
14	Coot,	<i>Fulica atra</i>	150
15	Dabchick,	<i>Tachybaptus ruficollis</i>	15
16	Stilt (Black winged),	<i>Himantopus himantopus</i>	15

17	Common Sandpiper,	<i>Actitis hypoleucos</i>	10
18	Little Egret,	<i>Egretta garzetta</i>	5
19	Small Egret,	<i>Egretta intermedia</i>	10
20	Large Egret,	<i>Egretta alba</i>	2
21	Stork (Openbill),	<i>Anastomus oscitans</i>	4
22	Painted Stork,	<i>Ibis leucocephalus</i>	3
23	White Necked Stork,	<i>Ciconia episcopus</i>	4
24	Lesser Adjutant,	<i>Leptoptilos javanicus</i>	1
25	Pheasant-tailed Jacana,	<i>Hydrophasianus chirurgus</i>	2
26	Bronze-winged Jacana,	<i>Metropidius indicus</i>	3
27	Purple Moorhen,	<i>Porphyrio porphyrio</i>	15
28	Pond Heron,	<i>Ardeola grayii</i>	2
29	River Tern,	<i>Sterna aurantia</i>	2
30	Little Tern,	<i>Sterna albifrons</i>	4

I thank Sri Ashok Mansur, Sri Nagendra, Sri Kadkol and Prof G.R. Hedge for their active participation in the census programmes and particularly Dr John Devadhar and Smt Madhuri Devadhar of Haveri for kindly sparing their jeep and also for taking part in the census and last but not least the ACF wildlife wing, Dharwad and the RFO, Ranebennur for their kind cooperation and assistance provided during our one day stay at Ranebennur.



## Nest-temperature Regulation During Incubation in the Ashy Wren-warbler.

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### Introduction

On 19, October 1988 a pair of Ashy Wren-Warbler, *Prinia socialis*, had three eggs in their nest of fibres anchored onto a few guava leaves at wide intervals, about 50 cm above the rain-wet ground grown with grass. The nest had no cotton-cushion bed. For recording the nest temperature (Nt°C) around the eggs for three days from 27th October 1988, I introduced the bulb of a thermometer of 110°C range into the nest through the base wall so as to lie among the eggs and fixed the annular end to an anchor pole. Another thermometer of the same range was fixed to a mango sapling close by for recording the ambient temperature (At°C). Allowing a day for the accommodation of the bird to a strange object. In the vicinity, constant vigil was maintained from 27th October '88, the ninth day of incubation, during the day and night on the three days. The readings of both the thermometers were recorded in the day time whenever the bird left the nest and, when she was observed back in the territory, a little before she re-entered, and during the night from 1800 h till 0600 hr. at an interval of two hours or less with the help of a pen-torch.

### Observation

Nest temperature and Ambient temperature

The At°C varied between 24°C and 34°C during the entire period of observation. As for the night temperature, the range for 27 October '88 was between 28°C and 32°C and for the other two days they ranged between 24°C and 29°C, the lowest being for 29 October '88. The Nt°C, varying between 30.5°C and 39°C with the mean at  $34.24 \pm 1.72^\circ\text{C}$ , were higher than the At°C throughout the three-day period of observation. Except for four At°C, others had more than one corresponding Nt°C each.

### Regulation of nest-temperature

It was observed that lower At°C had lower Nt°C, and for the difference between the two- At°C and Nt°C — higher the At°C smaller was the difference and vice versa, the differences being 3.25°C minimum and 9°C maximum with the mean 5.29°C. The regression coefficient for nest-temperature with reference to At°C being + 0.79, and that for the differences between Nt°C and At°C being - 0.78, it is visualized that the bird was actively involved in the regulation of the Nt°C with reference to At°C. The warm-blooded animals maintain a constant higher body temperature vis-a-vis the At°C by regulating physiologically the heat produced by metabolism, balancing the heat escaping by radiation into the environment. The rise and fall in Nt°C is symptomatic of the At° variations besides signifying

the radiation of heat from within the nest itself. It becomes imperative on the part of the bird to speed up or decelerate the metabolic heat production to regulate the  $Nt^{\circ}C$  around the eggs during both day and night.

### Duration of attentiveness and $At^{\circ}C$

While of necessity the Warbler sat tight on the eggs during the nights, she interrupted the sitting during the day-time hours for short or long durations of attentiveness and inattentiveness. During inattentiveness the  $Nt^{\circ}C$  fell and during attentiveness it rose, the rates of either depending upon the environmental situation. Low rate of increase despite long attentiveness must have been because of the rapid flow of heat from the nest to the environment at low  $At^{\circ}C$ . As the  $At^{\circ}C$  increased, the rate of  $Nt^{\circ}C$  rise also increased showing a steady build-up of thermal resistance at the nest-environment interphase which was maximum at  $32At^{\circ}C$ . The reason for the slow rate of increase in  $Nt^{\circ}C$  at the other high  $At^{\circ}C$ , was perhaps due to improper incubation. It is assumed that the slowest rate of increase for the longest attentiveness of 40 mt was only apparent, that there ought to have been a quick rise in temperature during the first one fifth of the period with almost zero increase thereafter, the bird doing improper incubation. Another contributory factor for the reduced rate of  $Nt^{\circ}C$  rise must have been the consequential retardation in the metabolic heat production. Besides, the cotton cushion bed absent, the material used and the architecture of the nest must contribute to the keeping of proper  $Nt^{\circ}C$ . The Ashy Wren-Warbler was evidently regulating the quantum of heat supplied by the body "to establish and maintain a definite temperature regime in the nest against the background of climatic conditions typical of the place of habitat" (Shilov, 1973).

### Microclimate in the habitat

At 1232 h even as the  $At^{\circ}C$  was  $34^{\circ}C$  the fall in temperature in the nest on the bird being away was rapid by  $3.5^{\circ}C$  due to the evaporative cooling from a bunch of mango leaves abutting the nest till separated at 1245 h. This is confirmatory of the existence of microclimatic level in the general environment.

### Flight frequency and its causes

Shilov observes that a change in the  $Nt^{\circ}C$  and  $At^{\circ}C$  affects the behaviour of the birds hatching the eggs, the flight from the nest being primarily determined by the  $Nt^{\circ}C$ . At 1410 h the sun behind the clouds and cool breeze blowing, the bird returned to the nest marking her stay outside the nest short. Then, her absence for 14 mt at  $26.5 At^{\circ}C$  seems inexplicable. Perhaps a plausible explanation is that the memory of the temperature regime that exists at the time of her leaving the nest and of the rate of heat exchange involving the metabolism of heat production in the body, a reflex, must be a guide to the bird. The longest inattentiveness for 38 mt was due to the bird's entry being

thwarted on four occasions by an inquisitive brown shrike around the nest plant.

### Nest temperature regime and development

A certain nest-temperature being required for the proper development of the eggs, importance of the length of time the bird could stay away without adversely harming the eggs is obvious. At the rate of  $0.25^{\circ}C/mt$  of fall in  $Nt^{\circ}C$  at  $26.5 At^{\circ}C$ , it should take 30 minutes for a reduction from  $34 Nt^{\circ}C$  to the  $At^{\circ}C$  level which was twice the duration of the recorded inattentiveness for that  $At^{\circ}C$ . A period of 84 minutes would have to pass before the  $Nt^{\circ}C$  was to dip down by  $6^{\circ}C$  to equal  $30 At^{\circ}C$ . The bird never stayed away that long.

The average difference in temperature between  $At^{\circ}C$  and  $Nt^{\circ}C$  for all the days and nights of observation was  $5.29^{\circ}C$  with the minimum and maximum at  $3.25^{\circ}C$  and  $9^{\circ}C$  respectively. The lowest actual difference between  $Nt^{\circ}C$  and  $At^{\circ}C$  was when the bird was away for 21 mt from 1232 h. Conversely, with regard to attentiveness the  $Nt^{\circ}C$  was steadied at  $39^{\circ}C$  for  $At^{\circ}C$  32, marking the highest temperature that the bird is capable of maintaining around the eggs in the nest, a difference of  $5^{\circ}C$ . Harmful extremes of temperature are not allowed, the bird selecting the kind of nest-site and making a nest of a certain architecture. However, one can know the limits only from the experiments involving artificial heating and cooling of the eggs. The egg temperature in this case was not known.

### Body temperature of the adult bird

The body temperature of the Ashy Wren-Warbler must be higher than the recorded maximum  $Nt^{\circ}C$  of 39 at which there was very low exchange of heat between the nest and the environment and which was maintained steadily at  $At^{\circ}C$  34. Desai (1993) has recorded the Warbler's body temperature as "fluctuating between  $40.2^{\circ}C$  and  $41.5^{\circ}C$ ". Assuming the same to have been happening for the bird at Tiruchirapalli ( $10.8^{\circ}N$   $78.8^{\circ}E$ ) and assuming that the low  $Nt^{\circ}C$  triggers high metabolic heat production and vice versa, the lowest and the highest  $Nt^{\circ}C$  of 30.5 and 39 were less than corresponding body temperature by  $11^{\circ}C$  and  $1.2^{\circ}C$  respectively with in-between degrees of differences for the others.

### Conclusion

In the Ashy Wren-Warbler the nest-temperature is maintained higher than the Ambient temperature.

There is a flow of heat from the body of the bird to around the eggs and through the nest-wall outside, the flow maintained by metabolic heat production.

The difference between the  $Nt^{\circ}C$  and  $At^{\circ}C$  is highest with low  $At^{\circ}C$  and Vice Versa.

The attentiveness and inattentiveness of the incubating bird is an adaptive behaviour to regulate the temperature in

the nest with reference to  $At^{\circ}C$ . The architecture of the nest must be a contributory factor towards that end.

The bird's leaving the nest is determined by the  $Nt^{\circ}C$  while her return is believed to be determined, besides air temperature, by the memory of the heat position in the nest and the rate of metabolism and heat production, a reflex.

The body temperature of the Warbler is reckoned to be above the maximum recorded  $Nt^{\circ}C$ .

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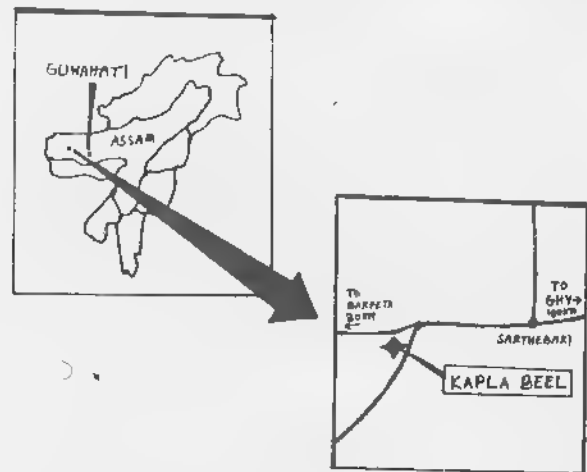


## Kapla Beel : A Deteriorating Rich Avifaunal Site

RATHIN BARMAN, & HILLALJYOTI SINGHA, Animal Ecology & Wildlife Biology, Department of Zoology Gauhati University 781 014, Assam

Kapla Beel ( $26^{\circ}15'N$  and  $91^{\circ}15'E$ ) is situated at Barpeta District of Assam is a good habitat for water birds. Despite the regular fishing practices and human interferences in and near the Beel some important water birds are found in good number. In the last week of December 1993 we have counted 1800 water birds of some 20 species. Lesser Adjutant 137, Purple Heron 71 (including two large flocks of 25 and 31) and Grey Heron 51 in number. It is quite fascinating to note that Purple Herons nowhere found in large flock in other wetlands of Assam. The high density of Lesser Adjutant signifies the quality of the Beel as their feeding site. It should be noted that the nearest breeding ground of Lesser adjutant is 7–10 km. aerial distance from the Beel. Though found in lesser number the presence of Greater Adjutant Stork is worthy of mention. For these reasons Kapla Beel deserves great importance.

The Beel is now being reduced to only 4 sq. km. (approx.) by constructing dam around the Beel proper and the water feeding canals now closed, making it stagnant pond. Gradually the Beel is dying due to siltation and eutrofication. Though the presence of maximum amount of water hyacinth (75%) providing good cover to the birds but it is producing hindrance to the water quality of the Beel. However, the



Kapla Beel

water vegetation and aquatic fauna of the beel are abundant. The noticeable fact is that this Beel is at the verge of degradation and it is high time to save the Beel.



## The Avian Barbarian

VINOJ MATTHEW PHILIP, Environmental Resources Research Centre, P.B. 1230, Peroorkada, Trivandrum 695 005

The rains having receded in November '93, frantic activity and calls of the white headed babblers (*Turdoides affinis*) filled the air in my backyard on one bright morning. Among the flock of seven in the 'sister-hood', besides hopping about and devouring insects, two were busy collecting strands of grass indicating their decision to build a nest and raise a family. Fortunately the floral support for their home was a tree (*Mangifera indica*) which stood in my backyard.

Subsequently the nest was built on a fork of a branch about 11 feet from the ground with the help rendered by other members of the 'sisterhood' as well. After the egg laying was complete (with 2 eggs only), the other members of the 'sisterhood' were seen only occasionally when their 'tri-ri-ri-ri's' united them for a game of hop-n-feed. Incubation was carried out in turns by the 'avian couple'.

Equally interested in this avian drama were a pair of Indian house crows (*Corvus splendens*), who were conducting 'aerial sorties' over the nest from a nearby neem (*Azadirachta indica*) tree. I was beginning to feel uneasy about these serial espionages, but decided to await the outcome. With two weeks of incubation complete, the fledglings emerged successfully and from then on, actively patterns of the parents doubled. In accordance with my guess work, the crows also doubled their quota of sorties followed by the frantic alarm cries an aerial chases by the enraged parents. Interestingly enough this activity attained a peak during late afternoon each day with no help from the other members of the 'sisterhood', who were around at the time of nest building. I presumed the research for this was that it was ideal foraging time for birds in general, and also it was possible that the other members were also raising a family of their own and facing the same plight in their respective territories in the neighborhood, as high pitched alarm calls could be heard some way off in the concrete jungle during the same part of the day.

On 22 Dec '93, I found one fledgling missing from the nest. It had not fallen off the nest as I first presumed. With one fledgling still left the crows resorted to more sorties and dared even to alight on a few branches. The babbler parents had a tough time chasing away the intruders only to find them returning a few minutes later. During this time, one of the crows lifted a female garden lizard (*Calotes versicolor*) by the tail from the tree and flying to my roof top to harass it. I could see the open mouth of the lizard poised and ready for defending itself. At last the lizard gave the avian bully a nice bite on the leg which proved to be painful, as the crow was found limping about on one leg. The whole thing lasted for about 3 1/2 minutes.

On 23 Dec '93, my fears were confirmed with one of the crows making off with the last fledgling in its beak and the parents hot in pursuit of the bully. The exercise having failed, the parents returned back to the tree to 'brood' over the loss. Now as I write this an empty cup of grass alone hangs on the mango tree indicating the painstaking effort of its former inhabitants. I wish to condemn this barbaric act of the crows in the strongest possible terms. To take matters worse my next door neighbours feed the crows with cooked rice every day. Crows are made bold by these innocent gestures and cause untold miseries to house wives who often complain that their utensils are missing from their outdoor, which these birds 'liftoff' attracted by the tid-bits sticking on to them. Also many of us are familiar with the aggressive pecks on the back of the head, while taking a walk on the terrace or collecting the sun dried clothes from the outdoor clothes line during the nesting period of crows. I know a few cases of people who have suffered serious injuries. Apart from this crows also cause considerable damage in the kitchen if a window is absent-mindedly left open.

Being omnivores, they have adapted well to the natural and manmade changes of the environment, and by multiplying rapidly attaining the present status of a 'pest' among avians. If their growing population is not checked, it is probable that other birds will decline in numbers both in and around cities. However it is interesting to note that a group of gypsies known as 'koravas' live on crow meat and also

supply them to some hoteliers, who in turn serve it as chicken on the table. Studies on the nutritional aspect of crow meat, if found feasible for human consumption, can replace poultry meat as a cheap and abundant source of protein.

I fully well agree with Dr Salim Ali's views that the crow population should be checked, if other species of birds are to survive. I am interested to know about effective ways to control them. Suggestions are welcome.



## INTERESTING SIGHTINGS

**SIGHTING OF RED-LEGGED FALCON AT AAKKULAM, KERALA.** MANOJ V NAIR, 34, Thoppil Nagar, Kumarpuram, Trivandrum, Kerala 695 011

On 26.11.1993, Mr Rajkaran, a friend of mine informed that he had seen a small raptor with slaty grey upperparts, streaked underparts and bright red legs at Aakkulam. I visited the place that day itself accompanied by him but could not see the bird. It remained elusive on all further visits, until I found it on 29.11.1993 and subsequently on 30.11.1993, 1.12.1993 and 2.12.1993.

The bird was smaller than a Kestrel, which it resembled, but longer wings which extended beyond the short strongly barred tail, slaty upperparts and the conspicuous red legs told it apart at a glance. It was very confiding and on all the days I was able to observe it through binoculars at close ranges, and hence almost all the field marks could be noted. The forehead and crown were dark grey, the head till the upper back brown and the rest of the upperparts slaty grey with blackish bars. The tail too was grey with 5 black bars of which the last one was broader than the rest. The eye was dark and a black patch running through it extended to the region of the ear-coverts. A small but broad moustachial streak ran down as an extension of this patch. The chin and the throat appeared white while the rest of the underparts was buffish with broad black streaks, noticeably profuse on the upper breast and disappearing in the belly, while the flanks were slightly barred with black. Regarding the soft parts, the beak appeared orangish with black tip while the legs were noticeably red.

The habits of this beautiful bird were typical of its genus but it appeared more active during the evenings. The bird could invariably be found seated on telephone poles and other such exposed perches during the day, the favourite perch being a dead Albizzia tree 20-24 ft tall which stood on the slope of a scrub-covered hillock. As dusk fell, the falcon minutes of soaring retired to a well-wooded patch where it



presumably roosted. The usual style of flight was swift and dashing. I also noted it soaring at dusk prior to roosting, but never was it seen hovering or attempting to catch any live prey. No calls were heard. The bird was more or less tolerant to the mobbing of crows, sun-birds and tree-pies but seemed to avoid the more persistent drongos.

According to the Synopsis, the bird is a passage migrant to India, most records obtained from S.W. India. It is further said that the passage takes place rather late from October to December and a few birds also straggle to Ceylon. While comparing my field-notes and sketches, it seems safe to conclude that the bird is a female Red-legged falcon (*Falco vespertinus*). Of course, further records are needed to confirm this, but it could well be worth while for bird watchers of South India, particularly Kerala to keep a look-out for this bird during the next autumn passage. It would also be interesting to know whether other readers have noted this falcon in their localities.

#### Acknowledgement

I thank Mr. Rajkaran who informed me of this bird at Aakkulam and my friend Jeevan who helped me in noting down the details of the bird.

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**GADWALL AT KADALUNDY ESTUARY, KERALA. P.K. RAVEENDRAN, Vallisseri, P.O. Avinissery, Trichur, Kerala**

The Gadwal is a rare migratory duck as far as Kerala is concerned. It is included in A BOOK OF KERALA BIRDS (Neelakantan K.K. *et al*, 1993) based on reports by A.O. Hume and Salim Ali. There are no recent records of this duck in Kerala.

On 27 November 1993 at 15.30 hrs, while watching birds at Kadalundy Estuary near Kozhikode, a solitary Gadwall *Anas strepera* caught my attention. On the mudflat, a little away from a group of gulls and terns, it sat preening. Slightly smaller than the domestic duck, its colour was mainly brown and grey. It had a large white patch at the centre of the abdomen. The under tail coverts were black. The wing pattern could be clearly seen when it took off, the white speculum being diagnostic. The bill was leaden grey, but the leg colour could not be seen as they were mud covered.

As the tide receded, all the birds started feeding actively. After preening for some time, the Gadwall entered the brackish water and began dabbling. It never dived below the surface. Later it moved away to the far bank of the estuary probably due to disturbance caused by fishermen.

The Gadwall has been described as a freshwater duck in most of the books. According to the Handbook (Vol.1, p 41) it affects reedy marshes and jheels, large and small, with

plenty of cover, open waterspread of dammed reservoirs only occasionally as daytime refuges. Hugh Whistler says, 'Except that it avoids the sea coast, the Gadwall is found in India wherever other ducks are found, in all types of river, marsh and tank ...' (Popular Handbook of Indian Birds, p 530). The unusual sighting of this duck at Kadalundy shows that it may be an occasional visitor to the sea coast also.

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**A NEW RECORD OF LITTLE PIED FLYCATCHER FROM NILGIRI BIOSPHERE RESERVE. A. PRABHAKAR, V. GOKULA and G. UMAPATHY, Salim Centre for Ornithology and Natural History, Kalampalayam PO, Coimbatore 641 010, India**

We started a short field trip on 10th of January to examine the Wildlife corridors with Dr. N Sivaganesan, Scientist, SACON around the Nilgiri Biosphere Reserve. On that day we went up to 27th mile vantage point (1100-1300 mt MSL) in Gudalur range, and had started walking down towards Thorapalli through slippery evergreen forest. Apart from our survey we were also recording bird sightings. In one moment we were lured by 3 sparrow sized birds swiftly flying across the branches picking insects. We enthusiastically observed them in bright day light. We recorded some field morphological features and referred them to the Salim Ali and Dillon Ripley "Pictorial Guide" for bird identification (1983) and compact handbook of the birds of India and Pakistan (1987). The bird was identified as the little pied flycatcher (*Muscicapa westermanni* Rothschild). According to Salim Ali and Ripley there is no record of this bird from entire Western Ghats. This is also not listed in the Nilgiri Biosphere Reserve vertebrate fauna list by Daniels, RJR (unpublished manuscript). Thus, this is a new record of this bird from Western Ghats, considering south of its presently known range.

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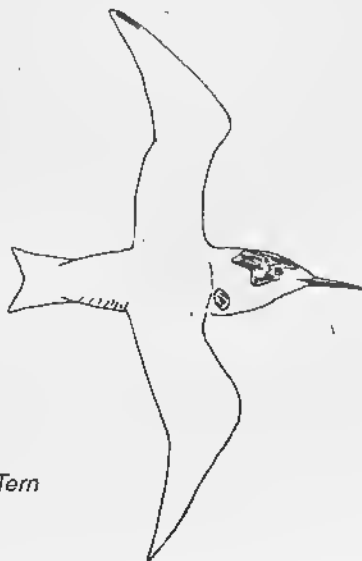


**BLACK TERN AT POINT CALIMERE, TAMIL NADU.**  
**HARKIRAT S. SANGHA, B-27, Gautam Marg, Khatipura,**  
**Jaipur, Rajasthan 302 012**

On leaving Poonarai Illam (Flamingo House) the rest house of the Tamil Nadu forest department, on November 21, 1993 the choice for us lay between watching birds at the lagoons or visiting the Muniyappan, the fresh water shallow lake; only at the last moment did we decide on the latter. After a walk through dense vegetation we arrived at the lake. We felt disappointed as there were no birds. Standing in knee deep water I was scanning the lake margin, when my attention was caught by the presence of a single tern on the bank. My initial thoughts on identification were that possibly it was a Whiskered Tern. I called Dr. Balachandran over, after a short while, he suggested Black Tern, to his eternal credit, and described the diagnostic features. The bird was sitting on the bank with its back facing us and we had ample time to observe the details. That evening I consulted the literature. The field notes indicated that the bird was in fact a Black Tern *Chlidonias niger* in winter plumage. The size, black of hind head and dark patch on sides of neck (figure) eliminated all other species.

Horace Alexander recorded the first sighting in India of this bird in winter plumage on October 12, 1949 at Delhi. It is possible that it was a Whitewinged Black Tern which is similar to Black Tern (Ganguly). More recently one Black Tern was trapped at Point Calimere with a Russian ring. About 40 birds have been ringed at Point Calimere and Mandappam (Dr. Balachandran, Pers. Comm. 1993).

Black Tern is Palearctic winter visitor and is largely coastal. It breeds in Europe and West Asia. In summer plumage it is unmistakable - forehead, crown, hindneck, sides of head and chin to belly black, rest of underparts slate-grey; and undertail coverts white. Dark smudges at shoulder at all ages distinguish it from congeners. It nests in colonies by inland waters, swamps, marshes and lakes. Feeds in groups or singly on marine fish, crustaceans and insects.



Black Tern

On November 22, 1993 a Black Tern was caught in the net fixed for waders from the lagoon and details were noted. The bird was an adult.

**Measurements**

Wing	Bill	Tarsus	Tail
210mm	23mm	21 mm	— (heavily worn)

**Colour of Bare Parts**

Bill black, legs and feet dull black.

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**MARbled TEAL IN RAJASTHAN. HARKIRAT S SANGHA, B-27, Gautam Marg, Khatipura, Jaipur 302 012**

On 14 February 1994, we were watching/counting waterfowl while driving along the Rajasthan Canal (now called Indira Gandhi Canal). We had started from Bajju (Bikaner) in the morning and had mainly encountered diving ducks and coots in the canal. However, in the evening at RD 1333 (Jaisalmer) three ducks were noticed which looked quite different from distance. On closer observation the ducks were identified as Marbled Teal *Marmaronetta angustirostris*. The ducks remained in view for almost one minute before flying upstream.\*

Again, on 15 February in the morning one more Marbled Teal was observed in the company of coots at RD 1440 (near Mohangarh, Jaisalmer). The bird was alerted by our approach and flew downstream taking a very low flight.

Marbled Teal is a Red Data Book species and undergoing major decline. Present information indicates a world population of approximately 30,000 (Green 1992). The species is chiefly a winter visitor to northern parts of the Indian subcontinent. It is classified as a straggler and has been reported in Rajasthan and Bikaner and Bharatpur (Ali and Ripley 1978). There has been no record of the bird in recent years (Asian and Australian Waterfowl Census). However, three ducks were reported from Pali in February 1991 (Tiware 1991).

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## THE WHITEBACKED MUNIA NEST IN MANGALORE.

DR. ARUNACHALAM KUMAR, Professor of Anatomy, Kasturba Medical College, Mangalore 575 001

A fairly successful project involving volunteer WWF effort aimed at rescuing and rehabilitating birds in Mangalore, has been featured in the NLBW earlier<sup>1</sup>. The group renders assistance in treating birds, or helping the novice flier go through the motions to develop confidence in its wings; maintaining research data; and educating lay public on the positive contributions made by a healthy resident population of avifauna to the quality of life in urban scenarios.

Responding to a distress call from an agitated youngster recently, who reported the "fall of a sparrow" (pardon the literary license), from a nest in a city residence, I hurried off from the onerous chores of ministering to reluctant medical students in the Anatomy dissection hall, with relief at the interlude offered by the unexpected, yet welcome phone call. A two kilometer ride, brought me scurrying up four flights of stairs to the fifth floor of an apartment block. A knock on the door, revealed two anxious boys, who let me in after confirming my identity (after a feminine-voiced exhortation from the kitchen). Pronto I was ushered into the dining room, where next to the well laid out table, on the cold mosaic floor lay a tiny feathered bundle. It did not take too long to warm the junior patient, and anon it was strong enough to let out an angry chirrup or two. Squat on the sofa, the bird preened itself. The chick was a whitebacked munia (*Lonchura striata*), nearly ready to discover the world ... but not strong enough yet. A thorough check revealed no signs of any injury, so without much ado, I climbed up the victual laden dining table, and with an adroit exhibition of gymnastic skill replaced the reluctant patient in the nest, reaching to the nether end of a tunnel shaped entrance of the typical munia nest. The procedure required some ingenious manipulation through a maze of mean looking electric wires, rummaging through a plexus of metallic tubes, all the while precariously perching on a polished dining table. The nest itself was located within a labyrinth of sinuous aluminium rods, and glass ... a monstrous example of what passes of these days as modern decorative lighting systems.

The question raised by the episode is: how is it the Whitebacked Munia chose a nesting site nearly 50 metres off ground level ... smack in the confines of a busy residential apartment with its attendant disturbing environs? Ali S<sup>2</sup> records the bird nesting in low dense bushes 5-10 feet above ground. Ali S and Ripley S D<sup>3</sup> mention the nest as met under 4 metres height. Yet this Mangalore Munia had built itself a cosy home, 3 metres above a dining table, a full 25-30 mts above floor level.

Does the choice indicate changing habitat? Does it bode well for the future of the bird? Is it a natural adaptive reaction to a fast metamorphosing urban scenario? Or is it an ominous sign that is serving a "SOS" of a kind we have not yet deciphered, nor perhaps want to? The absence of the Indian Tree Pie from Bangalore, and the Goldenbacked Woodpecker from other metros<sup>4</sup>, the annihilation of sparrows from Madras<sup>5</sup> have been noted. Have these birds gone

away, unable to modify their breeding and nesting style to suit the "City Development Authority" concepts? Is the Munia learning citizenship faster? Sad though the development is, in a way, it is welcome. There is hope yet, that many other city birds may train to co-exist, adapting to the changes the city skyline takes to.

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## CORRESPONDENCE

**BIRD CLUB IN KOTHAGIRI.** R. SELVAM, Secretary, Environmental Society Erode, Siddhartha Matriculation School, Thirunagar Colony, Erode 638 003

A bird club was inaugurated at Long Wood Shola, the only remaining shola forest in Kothagiri on 20th February. This is one fine example of Government Department and voluntary organisation coming together for constructive conservation work. The D.F.O. Mr Krishnamkumar's initiative, with the support of Nilgiri Wild Life & Environment Association Ooty, Kothagiri Wild Life & Environment Association paved the way for the bird club. It was started with the aim of promoting awareness among the inhabitants around the shola, to monitor and check destructive activities within and around the shola. The club was donated with Binoculars, Books, etc. by the Department and NWLEA. Any one interested in visiting the area for Birding may contact Mr Boopathy, Sakkatha, Aravenu Post, Kothagiri, The Nilgiris.



**NEED FOR REGIONAL SECRETARY OF OSI IN TAMIL NADU.** DR. S. THIRUMURTHI, Forest College and Research Institute, Mettupalayam 641 301, Tamil Nadu

I have received the Newsletter for Birdwatchers (November- December issue of 1993) with information on the office bearers of the OSI as decided in our Bangalore Seminar. It is surprising to note that while Andhra Pradesh, Karnataka and Kerala are having regional secretaries,

Tamilnadu has been omitted. As I have suggested in my previous letter, a regional secretary may please be nominated for Tamilnadu to effectively propagate the message and concepts of the OSI here and work for the betterment of ornithology.

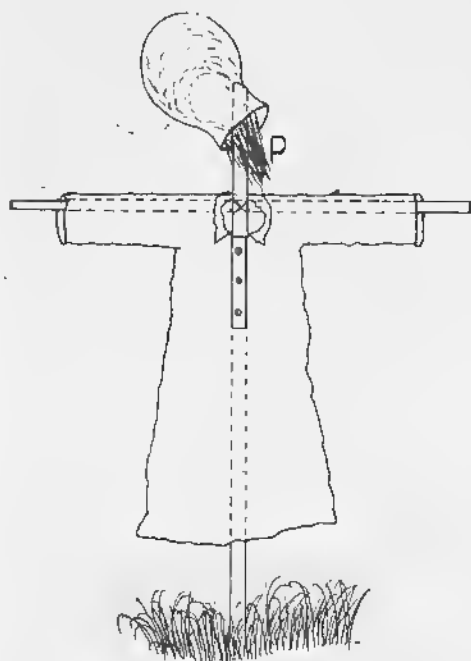


**OF CROWS AND SPARROWS.** SATISH KUMAR SHARMA, Range Forest Officer, Aravalli Afforestation Programme, Jhadol (F.) Udaipur (Rajasthan), India 313 702

### 1. Use of 'Pitcher-Effigy' as Nesting Site by House Sparrow

Since October 1993, I have walked over a major portion of forest and agricultural land in the Jhadol tehsil of Udaipur district. During my survey, I noticed a few nests of House Sparrow (*Passer domesticus*) in "pitcher-effigies" erected amidst agricultural fields by the farmers to drive away the crop raiding birds and mammals.

"Pitcher effigies" are prepared by farmers with locally available material. An old pitcher (earthenware vessel), having black outer surface, due to use in the kitchen is kept upside down on a vertical wooden pole of a man's height to symbolize the head of a man, having black hair. Then a horizontal stick is tied on the vertical pole to make the arms, raised at shoulder level. An old "Kurta" is put on to the wooden structure to make an effigy of a man working in the field. These effigies are said to be effective and repel many crop raiders. Birds, like House Sparrows use the space, available inside the pitchers, for placing their nests. Such sites seem quite safe from the rain, wind and even from attack by raptors. Perhaps raptors feel inconvenient to perch on the rounded surface of the pitchers and it is not easy for them to pull out the inmates of the nests. Moreover, the horizontal stick (representing the arms) provides a suitable perching station to the sparrows for display and copulation (Fig.1).



Pitcher – effigy amidst agricultural fields  
(P = Pitcher harbouring a sparrow nest)

### 2. Identification Capacity of House Crows

On 25.7.1988, a nest of a House Crow *Corvus splendens* with two chicks was espied by one of our staff on a *Eucalyptus* tree, growing on the Bougainvillea Park of the World Forestry Arboretum, Jaipur. While the parents were away, the nest with its chicks was gently removed and transferred to an *Ailanthus excelsa* tree, approximately 500 meters away from the original site. While the operation was about to end, at the 11th hour, the parent crows appeared at the new site. It was amazing that they identified their nest at once and ascertained that every thing was safe — the nest and the chicks. They darted repeatedly at the man who had handled the nest and they continued this till the next five days. They were able to identify the 'culprit' among the other 15 members of the staff and is thus clear that the identification capacity of crows is acute.



### PAST ISSUES OF NEWSLETTER. MANOJ V NAIR

Recently while unearthing back numbers of journals and scientific periodicals at the University Library, I chanced upon a few old Newsletter of the early eighties. There was that delightful little note about the Dodda-Gubbi birds, in which you narrated the sighting of the terek sandpipers. No doubt, a very strange co-incidence. I saw two of them feeding with a group of lesser sand plovers at Veli estuary, the very next day.



### IN INDIA, ENDANGERED CRANE IS RUNNING OUT OF TIME. MOLLY MOORE, Washington Post Service.

The scientists were ready, armed with electronic transmitters and six baby cranes who had been reared on crane chow and fed by human parents dressed in bird costumes.

The young cranes were supposed to migrate to Siberia with their wild counterparts. But for the first time in memory, the snowy white Siberian cranes did not appear at their Indian wintering grounds, alarming preservationists and dashing hopes for one of the international scientific community's most unusual and ambitious efforts to save an endangered species.

With the number of Siberian cranes that winter in India dwindling from 200 in 1965 to a mere five last year, crane experts converged on the Keoladeo Ghana National park here last month, planning to take six crane chicks bred in captivity and release them with their migrating wild relatives.

Scientists hoped the adults would teach the youngsters the centuries-old migration route over the Himalayas between India and Siberia.

The young birds' electronic transmitters would be monitored by satellite. Unlike many other birds, cranes are not born with the instinct to fly their migration paths.

"We're running out of time," said Katie Richter, an Ohio native among the group of preservationists working on the crane project, partially sponsored by the US Fish and Wildlife Service and the Wisconsin-based International Crane Foundation. "It already may be too late to save them."

The Siberian crane — a tall, stately bird with white plumage and a bright red face and beak — has become a symbol for international efforts to preserve endangered birds and their environments.

The Sibes, as the big birds are known among enthusiasts, have been particularly hard hit by rapid development, deforestation, uncontrolled hunting and the lack of wildlife preservation efforts in many of the developing nations they visit on their treacherous twice-yearly migrations.

A few years ago, several Siberian crane carcasses were rumored to have been discovered in the meat bazaar in Kabul, the capital of Afghanistan. In Pakistan, migrating flocks of Siberian cranes and other large birds have reportedly been downed by hunters hurling rocks tied to twine.

Ornithologists say they think the Siberian cranes that migrate west to India and Iran are near extinction. None of the cranes have so far reached India this year, and only one small flock of six Sibes has been spotted in Iran. Another branch of the Siberian crane family, the shrinking eastern flock of about 2,500, winters in China. No other flocks are known to exist in the wild.

For two years, scientists from the United States, Russia, India and Japan have collaborated in an elaborate scheme to try to replenish the dying western flock.

First, eggs were taken from the nests of Siberian cranes raised at the International Crane Foundation's preserve in Wisconsin and flown in insulated plastic boxes warmed with hot water bottles to Moscow, where they were hatched in incubators. Scientists blasted cool air on the eggs each time they were turned to simulate the mother leaving her warm nest in the brisk Siberian temperatures.

The crane chicks, Bugle and White, were released with their wild cousin in Siberia, but apparently did not have enough time to bond with adult birds and refused to fly south to India last winter.

This year Bugle and White, along with four other chicks — Gorby and Boris, hatched in Wisconsin, and Billy and Bushy, raised in a Moscow preserve — were flown to the Indian sanctuary here at Bharatpur. For the first time, scientists were going to try to integrate incubator chicks with adults at wintering grounds rather than breeding grounds. Although the procedure was considered risky, scientists hoped the six young birds would be adopted by the wild Sibes, who would then teach them the route over the world's highest mountain range to Siberia.

"Anything is worth trying," said Belinda Wright, a naturalist and film maker participating in the crane watch at Bharatpur.

But teaching artificially incubated birds that they are cranes has been a major problem. "If they grow up being fed by humans, they will not mate with other cranes," Ms. Richter said. "They solicit people for mating."

In an effort to avoid confusing the young Sibes, the crane's caretakers dish out daily rations of crane chow and plant tubers while wearing a wild costume — a crude rendition of "Sesame Street's" Big Bird. Park rangers guard the secluded cages from a distance, keeping curious humans from venturing within visual range.

In another experiment using new technology, scientists planned to attach small electronic transmitters to the Bharatpur chicks so their flight patterns could be monitored by satellite. Experiments last year on the more plentiful common crane, which also breeds in Siberia, were not very successful.

The signals disappeared after a few weeks, an indication the batteries had failed, but one transmitter inexplicably began working months later with signals indicating the crane had moved to the border of Iran and Afghanistan.

Despite years of studying Siberian cranes, scientists still know little about their habits.

*International Herald Tribune, 9 February 1994*



## SYNOPSIS OF A THESIS

**THE ECOLOGY OF THE SOUTHERN CROW-PHEASANT**  
*CENTROPUS SINENSIS PARROTI* STRESEMANN  
(AVES: CUCULIDAE) AT POINT CALIMERE, TAMIL  
NADU V. NATARAJAN, Scientist, Grassland Ecology  
Project, Bombay Natural History Society, Bombay

The Southern Crow-pheasant *Centropus sinensis parroti* is distributed in the Indian peninsula, south of the Gangetic plain from North Gujarat, Kutch and Saurashtra east through Madhya Pradesh, Andhra and Orissa, south through Maharashtra, Mysore, Tamil Nadu, Kerala and Ceylon (Ali and Ripley 1983). Some information on general habits, nests and eggs of Southern Crow-pheasant is available (Hume 1890, Baker 1927 and Ali and Ripley 1983). However, no detailed studies have been done. In addition, the coucals or crow-pheasants, are considered to be highly destructive to eggs and nestlings of other birds. Hence, a detailed study was undertaken from August 1986 to March 1989 at Point Calimere, Thanjavur District, Tamil Nadu, on the general habits, population density, feeding ecology, general behaviour and breeding biology of the Crow-pheasant to ascertain its role in the ecosystem. The Southern Crow-pheasant is a common resident bird at Point Calimere.

Study sites were located in the Point Calimere Wildlife and Bird Sanctuary and the two adjoining villages namely Kodikkara and Kodikkadu. More intensive studies were done in the two above mentioned villages since observations were difficult in the forest due to dense vegetation.

The biometrics, general habits namely awakening, roosting and vocalisation were studied. Regarding roosting, the tree species and roosting heights were recorded. Awakening time was correlated to sunrise. The crucial was recorded to roost in nine tree species, the most preferred being *Prosopis chilensis*, followed by *Pandanus tectorius* and *Manilkara hexandra*. Various types of calls and their significance are discussed.

Four transects representing four micro-habitat types viz., Muniappan lake (low-lying scrub), Ramarpatham (elevated scrub), Palaithoppu (disturbed scrub) and Pudukkulam (scrub with introduced species) were selected in the forest for comparative population density studies on the Crow-pheasant. Density was estimated by line transect method (Emlen 1971). The density was highest in the Pudukkulam transect when compared to other transects. Based on the census, the population of Crow-pheasant was estimated to be 372 individuals for the sanctuary. The abundance of possible food items like arthropods, molluscs in the four transects were also sampled and the density of Crow-pheasants in relation to food abundance is discussed. Breeding bird density was estimated in the village and forest.

Behavioural activities were studied by total animal sampling technique (Altmann 1974). The time spent on various behavioural activities such as foraging, body maintenance, flying, heavy cover retreat, calling are described.

The diet, feeding sites, foraging height, time spent on trees and ground and methods of feeding are described. Altogether 30 food items were recorded, all being animal matter. Two species of snails were found to constitute the major portion of the diet, eggs and nestlings of birds forming only a small portion.

The breeding season was recorded to be from November to May. Nesting and egg laying activities intensified after heavy rains. Both sexes take part in nest building, incubation and feeding the young. The nest is globular in shape with a lateral entrance, however some nests with deep cup like structures were identified. It was found that there was a difference in both nest materials used and vertical distribution of nests between forest and village. Nest densities was found to be higher in the village than the forest. The size of eggs, clutch size, incubation period and incubation rhythm are described. The frequency of feeding trips to nestlings made by parents, growth of nestlings, fledging period and the dispersal of young and breeding success are discussed.

The study reveals that the crow-pheasant at Point Calimere feeds on insects, snails, frogs, lizards and snakes. Comparatively the eggs and nestlings of other birds forms

less than 1% of its diet at Point Calimere. It is, therefore, evident that the crow-pheasants at Point Calimere do not play a significant role in the nesting success of other species of birds.

*[The various calls of the Crow pheasant, the faithful response of the female (?) to the calls of its mate and the regular pattern of these vocalization is worth describing in detail. The manner in which the birds bend their necks, seemingly to get the best effect out of every note is an interesting sight. In this synopsis the author says that in the Thesis "Calling" (is) described. We would like to have a note on this for our future issue]. Editor*



#### PAINTED SPURFOWL IN SARISKA. G. VISWANATHA REDDY, Project Director, D.R.D.A., Alwar 401 001

Project Tiger Reserve in Sariska is situated in the North eastern part of Rajasthan, having a common border with Haryana and U.P. Apart from the Tiger and other wild animals it hosts a large population of Grey partridge (*Francolinus pandicrius*) and quite a good number of Black partridge (*F. francolinus*).

It was around 5.0 clock on 13.3.94 when I was travelling from Tehla to Sariska looking for the uncommon black Partridge that I saw a lone Painted Spurfowl. (*Gallus perdiculatus*) I stopped my vehicle and watched it picking up food from the ground. The forehead and crown was metallic greenish black. The tail was blackish faintly glossed with green. I watched it for nearly 5 minutes while it was unmindful of our presence.

According to the Compact Handbook of the Birds of India and Pakistan by Salim Ali & Dillon Ripley Second Vol.2, 70 edition — the distribution is not in Rajasthan and Gujarat. Since sighting was for the very brief period, I request other bird lovers to watch out for the Painted Spurfowl whenever they visit Sariska.



#### FLIGHT OF THE PURPLE SUNBIRD. A.K. BANERJEE, Forestry Training Institute, Haldwani

It had rained the previous night and on 4.1.93 at about 10 a.m. while passing through a road, inside our institute campus, a sudden chi-whit, chi-whit call attracted my attention. I saw a purple sunbird (*Nectarinia asiatica*) sitting on an electric wire under *Jacaranda mimosaeifolia* and *Dalbergia sissoo* trees. I noticed that the bird was making sallies and hovering in the air to hawk insects and it was continuously chirping during these sorties.

The intriguing part of the sighting was that the bird was not merely hovering for more than 5 to 6 seconds but it was sometimes flying back 1 to 2 cm in the manner of the Humming Birds of the New World. I would like to know from other bird watchers if they have seen such flight behaviour of Purple sunbirds.

**SIGHTING OF A SMALL OWLET AT BAREILLY, UP. D.C. BANERJEE, Joint Director, Training/Apprenticeship, Bareilly, Moradabad & Agra Division, Bareilly.**

- 1 Size: about 11 cm (About half the size of a common Spotted Owlet).
  - 2 Large round head with no tuft on the ears.
  - 3 Small round tail (like the tail of a common spotted owl).
  - 4 Bright red eyes.
  - 5 From the upper most part of the head to the tip of the tail the colour of the plumage dull ashy-dark brown.
  - 6 Two white bars, 1" long and about 1/4" wide on each wing at about 3/4" away from the pointed end of the primaries and the bars about 1/4" apart from each other.
  - 7 From lower throat to belly coloured off white with dark (light black) barrings.
- On both occasions the bird was seen diving to the ground to catch prey.



- a) On 20.1.94 it sat first on the ground for about 2 to 3 minutes searching for its prey at the stem of a large Ficus religiosa tree, then flew and sat on a lower branch of the tree for 2 to 3 minutes, and then flew away.
- b) On 12.2.94 it just came diving to catch some prey in the open lawn, and then in a split second flew away to the top most branch of a Jack fruit tree.

By matching the barrings over its chest and its call Kao – Kao followed by Kao – Kuk, Kao–Kuk it seems that the species is *Banded jungle owllet* (*Glaucidium radiatum*). But its colour pattern does not match with the pictures given in bird books. Its light body colour and red eyes perhaps indicates that it is an *albino Banded Jungle Owllet*. We should like to know the views of the erudite readers of the *Newsletter for Birdwatchers*.

**SIGHTING OF BLACK STORK NEAR BELGAUM. NIRANJAN SANT, 27 Adarsh Nagar, Vadgaon, Belgaum 590 005**

On the 26th Feb 1994, my friend Mr Bagi, and I were on our way to Dandeli Wildlife Sanctuary, which is about 98 km

from Belgaum, near a village called "Gothehalli", about 45kms away from Belgaum, on the Belgaum Haliyal Road, we saw a small pond.

On the bank were 5 white-necked storks and we got down to take pictures. As we approached the pond our presence disturbed some River terns and the storks got restless.

On going closer, I could identify 38 whitenecked storks and among them were two very shy birds. As they flew away, I could see their black necks, black wings and white belly, therefore distinctly identifying them as Black storks.

To my further amazement, I saw 2 Lesser Adjutant Storks and about 45–50 Nakta duck, of which 9 were males.

This is the first record of a Black stork in this region. Also, the large gathering of Nakta ducks and Lesser Adjutant storks is surprising, and I am speculating whether they could have been on their way back to their summer grounds.



**MIGRATION OF THE COMMON POCHARD AYTHYA FERINA AND THE COMMON PIN-TAIL ANAS ACUTA TO THE TANKS OF DHARWAD DISTRICT (KARNATAKA STATE ; INDIA). R.N. DESAI, Zoology Department, Karnataka Science College, Dharwad 580 001**

The common pochard *Aythya ferina* distributed in the western parts of central Asia is known to migrate only to the northern parts of south-east Asia and east Asia during the non-breeding season (Bharath Bhushan *et al.*, 1993). Recent literature, however, reveals that not only this duck but also its allied species, viz., the ruffed pochard *A.fuligula*, Baer's pochard *A.baeri*, and the redcrested pochard *Netta rufina* migrate to different parts of India (Ali, 1993), Rajasthan (Vyas, 1993), Madhya Pradesh (Kher and Khare, 1993), Bihar (Sharma, 1993), Assam (Saikia and Bhattacharji, 1993) and Orissa (Kar and Sahu).

During our recent census of wet-land birds of Dharwad District (Karnataka, India) (1992–1994), we have observed flocks of *A.ferina* in the two tanks of Attiveri (15°05'N and 75°1'E). They arrive late in November and stay there up to the middle of February. In Attiveri tank there were 120 birds, while in the Gidadahubballi tank there were 25 birds. All the birds were in a state of "eclipse". This report on the migration of any species of pochard down to Karnataka State (S. India) is the first of its kind.

Similarly for the first time, the northern common pin-tail *Anas acuta* of north Asia has been sighted in the Gidadahubballi tank this year. There were ninety birds in the flock comprising of the adults with the males in "eclipse". The winter migration of this bird to the tanks of Andhra Pradesh (Rao and Mohapatra, 1993) and Kerala (Nameer, 1993), has been recently reported, in Karnataka it has been reported so far only from Shimoga District (Gururaj *et al.*, 1993). As such, the present report on the migration of this duck to the tanks of Karnataka is only the second of its kind, and worth noting.



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**BIRDS OF INDIA BY BIKRAM GREWAL — MANU PRASANNA & PAVAN NAGARAJ, No 5, 3rd Cross Road, Nehru Nagar, Bangalore 560 020**

As young birdwatchers, keen on adding to our knowledge of bird life and bird identification, we turned to the recently published book 'Birds of India' by Bikram Grewal. But we regret to point out, that the book, despite its impressive get-up, disappointed us. In fact it was this aspect of the book which induced us to go in for a copy of our own. The author seems to have drawn heavily from the Handbook by Salim Ali and Dillon Ripley, often reproducing descriptions verbatim. Even the word 'Mysore' has been borrowed when what is meant is 'Karnataka'; since Mysore is no longer the princely state it once was.

For example :- (127) **Black Crested Baza** As described by Salim Ali and Dillon Ripley in the Hand Book :- **General Habits:** .. singly or in small parties .... somewhat crepuscular; more active in cloudy overcast weather and at dusk...perches upright high up in the canopy of a lofty forest tree; ... makes its aerial sorties after flying insects.... hovering momentarily. **Voice and calls:** A soft quavering plaintive squeal or whistle, recalling the Pariah Kite's.... **Food:** Chiefly lizards, frogs, large grasshoppers, mantises, and other insects. Bats and small birds ... **Status and distribution and Habitat:** Resident. Uncommon. Kerala ... western Mysore... Eastern Nepal, Sikkim, northern West Bengal... Assam.. upto 1200 m...Evergreen forests in the neighborhood of clearings and wide streams, chiefly in foothills country.

(127) **Black Crested Baza** as described by Grewal:.. Solitary or small flocks in tall forests; more active in cloudy weather and at dusk; makes sorties after winged insects from perches high up in forest trees; occasionally hovers. **Food:** Insects, small lizards, frogs, Small birds. **Voice:** Plaintive squeal, very much like Pariah kite's. **Range:** Uncommon Resident; Kerala and some parts in adjoining Mysore; NE India, east of E Nepal to about 1200m. **Habitat:** Evergreen forest, clearings, streams, foothills.

Since many species are dimorphic, it is essential to mention the sex of the bird illustrated. The wide difference in colour pattern of the male and female poses difficulties in identification, without a proper illustration. No such effort is made in the book.

The Book claims " Here for the first time each family of birds found in the region is illustrated by superb photographs and over 500 species are detailed in the accompanying text". But actually less than 300 species are illustrated. But the

Indian sub-continent has over 1200 species. Some photographs are no doubt pleasing to the eye but many photographs are so small in size that they do scant justice to the birds' features as well as their beauty. The photograph of the male Paradise Flycatcher is a case in point. It is a bird of rare beauty. But all that one sees in the small photograph is a whitish streak. Some photographs offer no clue for bird identification. (for example Blacknaped Green Woodpecker, Fairy Blue Bird, Himalayan Snow Cock, and Lammergier.)

Regrettably, none of the current findings on endangered birds have been included, though an entire chapter has been devoted by the author on "Vanishing Birds". This chapter includes only Jerdon's Courser, Pink headed Duck, Himalayan Mountain Quail and the Forest Spotted Owlet. A lot of research has been carried out by BNHS, BLI, IWRB, AWB, IUCN, WWF, SACON etc., in recent years. Based on their findings many species of birds have been listed as endangered or threatened in India. These include the Lesser Florican, Great Indian Bustard, Narcondam Hornbill, Sclater's Monal (all endemic to India), Spot billed Pelican, Bengal Florican, Greater Adjutant Stork, White winged Wood Duck, Western Tragopan, Great Indian Hornbill, Black Necked Crane, Burmese Peafowl, Indian Skimmer, Black Bellied Tern and Indian Darter, to name a few.

The title of the book suggests that the birds described include birds of Pakistan, Nepal, Bangladesh, and Sri Lanka. However, there is no description of the status or range of the birds in these countries. So this Guide may not be of much use to birdwatchers there.

Young birdwatchers like us are eager that more and more books of high quality and usefulness should be published. We are sorry to point out that the book has many deficiencies. Our fellow birdwatchers hope that the next edition of the book will be so revised as to meet our expectations and more economically priced.



## BOOK REVIEW

**THE BIRDS OF CITES AND HOW TO IDENTIFY THEM BY JOHANNES ERRITZOE. A REVIEW, A.K. CHAKRAVARTHY and S. SRIDHAR, No. 10, Sirur Park 'B' Street, Seshadripuram, Bangalore 560 020**

### A classic volume on identification of Endangered birds

Whether the world's declining and endangered birds will survive is uncertain. As this uncertainty lingers on, 1478 bird species and sub-species, out of over 8600 in the world are listed by the CITES, the Convention on International Trade in Endangered Species of Wild Fauna and Flora. CITES was founded on 3rd March, 1973. Today more than 120 countries are parties to the convention. To coincide with the twentieth anniversary of the founding of CITES, Danish artist and scientific conservationist Johannes Erritzoe and his wife Helga for the first time, provide a means of positively identifying endangered birds.



CITES lists all threatened and endangered species and regulates the conditions under which they can be exported and imported. Needless to say, the success of the whole system depends on the willingness of the member states to enforce the CITES regulations and to take action against poachers and illegal traders. However, before this can happen, the states must be able to recognise the species listed in the convention.

As with several books on birds, this is not just 'beautiful pictures and description'. It is not aimed at the field ornithologist; more at the customs officers, taxidermists, aviculturists, all trade controlling authorities and scientific advisors. Under *Introduction*, the scope and the appendix lists of the CITES are included.

CITES appendices describe the protected status allocated to species. All types and degrees of threats are grouped into three lists: List I, II and III. A *quick guide to all Bird families* allows readers to place the individual species shown in the body of the book into a wider context. A *Topography* and a *Glossary* show the basic parts of a bird and describes other technical terms used in the text. For those with no command of English but knowledge of other languages, a *Dictionary* shows all the other words used in the text in the French, German and Spanish translation, appropriate to the ornithological context. A *Colour Guide* presents the colours used in illustrations and named in the text, with a key to the name of each species.

*The Birds of CITES* include 269 species of birds of prey, the cranes (9 species), the parrots (283 species), the owls (145 species), and the humming birds (40 species). In addition, 406 birds have been illustrated in colour. Johannes and Helga know their birds well, a fact that is readily apparent when one looks at their vibrant illustrations. Sketches invariably capture the essential and the 'perfect' features of each species. There are not only carefully finished paintings but also sketches made in the field or based on first hand observations. These spread into 75 colour and 10 black and white plates. Sensibly no photographs have been included. None are needed either. Concise descriptions of each species, including size, plumage, colour and distinguishing features are given. This is the largest chapter with 176 pages.

Four hundred and thirty-two references are cited under *References*. This should enable anyone to trace any up-to-date information on the topic. Twenty five articles of CITES are fully stated under *Appendix — Text of CITES*. All scientific names in alphabetical order are arranged and are included in the *Index of Scientific names*. At the end, a *World Map* indicating all the important ornithological countries/regions is appended. Thus, this book is totally comprehensive in its coverage.

Bird fans in India will be surprised to learn that even species like Cattle Egret (*Bulbulcus ibis coromanda*), Shoveller (*Anas clypeata*), Wigeon (*Anas penelope*), Garganey (*Anas querquedula*) etc. are categorized under List II, i.e. all species which, although not threatened with extinction now, may become so, unless trade in specimens of such species is subject to strict regulation. Seemingly, rare birds like Malabar pied Hornbill, *Anthracoceros coronatus* and Oriental pied Hornbill, *Anthracoceros a. albirostris* have been included in the lists of CITES only in March, 1992. We were also intrigued to find our notorious friend, Roseringed Parakeet, *Psittacula krameri* in List III for Ghana! List III includes all species which any party has identified as being subject to regulation, within its jurisdiction for the purpose of preventing or restricting exploitation. Erritzoe has come up with numerous such interesting facts and figures which help make the text readable and interesting. Certainly birds can be saved; but the fate of the Passenger pigeon, reduced in a few decades in U.S.A. from such abundance to extinction and that of Siberian Crane in India from hundreds to the very edge of extinction in the nineties, show how hard it can be to stem the rot.

The publishers, The Lutterworth Press and have done well producing this book in two forms — Hardcover for ornithological bibliophiles and ringbound for customs officers and other management authorities. Ring-binding will allow the work to be updated every two years. AAGE V Jensen Charity Foundation, Denmark gave Erritzoe carte blanche and he has from bird identification produced a science, in a way where only the best succeed.

With a **Foreword** by His Royal Highness Prince Philip, Duke of Edinburgh, President of the Worldwide Fund for Nature, this is a fine book. A Precious Lifetime Gift for Rs. 1500/-.

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## Shooting through a Loophole

*Geese protected from everything but a farmer's gun*

In March 1993, Daniel Quinn – who farms land owned by the Wildfowl and Wetlands Trust (WWT) beside the Solway estuary in Dumfriesshire – shot two strictly protected barnacle geese. He was prosecuted, he told the sheriff that he was protecting his pastures, and this March he is likely to be shooting more geese – with the full approval of the Scottish courts and the Secretary of State for Scotland.

Careful conservation by Britain and Norway has nurtured this population of barnacle geese – which breed on the Norwegian island of Svalbard (Spitsbergen) and winter around the Solway – from an all-time low of 400 in the 1940s to around 13,700 today. But that is still critically small for a bird that is notoriously susceptible to poor breeding and overexploitation.

When the case came to Dumfries Sheriff Court, Quinn pleaded not guilty on the grounds that shooting the geese was legal under the Wildlife and Countryside Act. Indeed, the act contains a clause that allows owners or occupiers of land to shoot anything, protected or not, which might cause serious damage to their crops or livestock. Quinn said that, on occasions, up to 12,000 geese were feeding on, and damaging, his cattle pastures. The sheriff acquitted him. It was the first time that clause had ever been accepted quite that way.

Quinn's land is on Powhillon Farm, owned by the WWT and managed by Quinn on behalf of the agricultural tenant, his mother-in-law. Forty per cent of the farm is saltmarsh grassland and part of the Upper Solway Site of Special Scientific Interest (SSSI). It is also a Special Protection Area under the EC Birds Directive and a Ramsar site under the wetlands conservation convention – an array of protection and international recognition that signally failed to impress the sheriff.

John Doherty – the reserve manager of Eastpark, a WWT farm immediately adjoining Powhillon – believes that Quinn's estimate of his loss is greatly exaggerated. At Eastpark, one seven-hectare field regularly supports at least two and a half times as many geese as the whole 69 hectares of Powhillon, and yet its grass crop is still good enough to attract rents for summer grazing.

On the Scottish island of Islay, where barnacle geese from the separate Greenland breeding population spend the winter, a goose management scheme – under which Scottish Natural Heritage (SNH), the government conservation agency, offers farmers £9.50 per goose on

their land – has won widespread support from farmers and helped defuse conflict there. But Quinn has refused an offer of £5,300 from SNH to manage his fields for geese – on top of £5,200 he already gets annually for the SSSI land – because he calculated this at less than 50p per goose on the basis of the huge numbers he claims graze the farm.

But twice a day, as part of a long-term study, WWT staff count Powhillon geese from the Eastpark hides. These counts show an average of just 289 birds on Quinn's land, which would make the SNH offer equivalent to £18.34 per goose – almost twice the amount gratefully accepted by Islay farmers and well in excess, says Doherty, of any agricultural profits forgone by Quinn.

But despite the fact that one arm of government, SNH, was trying to negotiate an equitable solution to Quinn's goose problems, another, the Scottish Office Agriculture and Fisheries Department, followed the Sheriff Court verdict by issuing Quinn the first-ever licence to shoot barnacle geese on the Solway.

After the sheriff's verdict, WWT thought it saw one last chance. The shooting licence required the landowner's permission before geese can be shot, which WWT obviously had not given.

So the trust sought an interim interdict (a temporary injunction) at the Scottish Court of Session to stop the licence being exercised. But the judge, Lord Johnston, refused, stating – in a chilling reflection of the relationship between judiciary and government – that he felt it inappropriate for the court to take an action that would, in effect, revoke a decision by the secretary of state.

So, until the end of April, Quinn has virtual open-season on Powhillon Farm; the licence puts no limit on the number of geese he may shoot.

In a final irony, another Government official was publicly saying, almost as Quinn's case was in court, that geese have passed the population level which farmers and crofters are prepared to tolerate. He suggested the introduction of licensed shooting and the derestriction of goose-meat sales, and he spoke of the need to challenge the "protect-the-birds-at-all-costs brigade."

Extraordinarily, this did not come from some agricultural spokesman of the old guard, but from Roger Crofts, the chief executive of SNH, the agency charged with protecting species such as the barnacle goose in Scotland.

Michael Scott

Courtesy: BBC Wildlife, December, 1993

## Nature's conundrums

I am confronted with frequent evidence that readers of this column are psychic. I have only to turn my mind to some quite obscure natural history problem when within a week or two, I receive several letters on the subject. The latest topic is the reaction of birds to their reflection in windows. For well over a year a reader has mentioned this problem, but now within a fortnight no fewer than three have put to me a query about it.

A German correspondent confesses that he has often asked the question; what prompts a wagtail, for instance, to fight its own image mirrored in a window-pane? Does it believe it is fighting a rival? And an Australian reader tells me that at 7 am each morning, when the sunlight hits his windows and produces a perfect reflection, the magpies in the nearest tree do battle with their perceived foes, fluttering up to it and clawing at their reflections. He and two more readers know that it is quite a common phenomenon but wonder what the scientific explanation may be.

We need to remind ourselves that the life of a bird is quite short. Probably the birds that attack their reflections in glass are seeing the phenomenon for the first time. They have no past experience to guide them, for there is no counterpart to glass in nature. It is noteworthy that in town and village areas where they see glass from the nest daily they seldom react to their reflections. No, these are juveniles, learning by experience.

Ralph Whitelock

Courtesy: Guardian Weekly, Nov. 14, 1993.

Cover Photo : Spotted Dove (*Streptopelia chinensis*). A slender dove, with a spotted black and white 'Chess-Board' at the base of the hind neck. Its call is a soft pleasant 'Krookruk-uk-Krukoo, Kroo, Kroo-Kroo'. When alarmed takes off with a sudden burst of wings; in quick side to side rolling action. Builds a flimsy nest of a few twigs, low down in a tree or a thorny bush.

Photo : S. Sridhar, ARPS

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